## Draft Environmental Assessment

Amendment to Final Bison Hunt Environmental Assessment (September 30, 2004)

Adjust Bison Hunting Season Dates in a Portion of Bison Hunting District 385

**April 23, 2007** 



#### MONTANA FISH, WILDLIFE & PARKS



# ENVIRONMENTAL ANALYSIS MEPA/NEPA CHECKLIST

**MISSION.** Montana Fish, Wildlife & Parks, through its employees and citizen commission, provides for the stewardship of the fish, wildlife, parks and recreational resources of Montana, while contributing to the quality of life for present and future generations

All Montanans have the right to live in a clean and healthful environment. This brief environmental analysis is intended to provide an evaluation of the likely impacts to the human environment from proposed actions of the project cited below. This analysis will allow Montana Fish, Wildlife & Parks to fulfill its oversight obligations and satisfy rules and regulations of both the Montana Environmental Policy Act (MEPA) and the National Environmental Policy Act (NEPA). The project sponsor has a responsibility to ensure that all impacts have been addressed. Some effects may be negative; others may be positive. Please provide a discussion for each section. If no impacts are likely, please discuss the reasoning that led to your determination.

#### PART I. PROPOSED ACTION DESCRIPTION

- 1. Type of proposed action. Management Action/Adjust the Bison Hunting Season Dates for a Portion of Bison Hunting District (HD) 385
- 2. Agency Responsible for the proposed action. Montana Fish, Wildlife & Parks (MFWP)
- 3. Name of project: Amendment to Final Bison Hunting Environmental Assessment (September 30, 2004) to Adjust Bison Hunting Season Dates for a Portion of Bison HD 385
- 4. If applicable:

Estimated construction/commencement date: N/A

**Estimated completion date:** N/A

Current status of project design (% complete): N/A

- 5. Location affected by proposed action (county, range and township).
  - Portions of the Absaroka-Beartooth Wilderness Area north of Yellowstone National Park (YNP), to include the entire Hellroaring, Buffalo Fork and Slough Creek drainages north of Yellowstone Park in Park County, MT, as described in the 2006 Montana Bison Hunting Regulations (see attachment A and map). This area includes several townships within Ranges 9-14E and Townships 7-9S and encompasses approximately 162,000 acres.
- 6. Project size: estimate the numbers of acres that would be directly affected that are currently:

(a)	Developed:
	residentialacres
	industrial acres
(b)	Open Space/Woodlands/
	Recreation 162,000 acres (includes various habitats located in the federall
	designated Absaroka-Beartooth Wilderness Area)

(c)	Wetlands/Riparian	
	Areasacres	
(d)	Floodplain acres	
(e)	Productive:	
	irrigated cropland acres	
	dry croplandacres	
	forestryacres	
	rangeland acres	(roads & trails on BLM land)
	other acres	

7. Map/site plan: attach an original 8 1/2" x 11" or larger section of the most recent USGS 7.5' series topographic map showing the location and boundaries of the area that would be affected by the proposed action. A different map scale may be substituted if more appropriate or if required by agency rule. If available, a site plan should also be attached.

See attached map.

8. Narrative summary of the proposed action or project including the benefits and purpose of the proposed action.

Proposed Preferred Action: Supplement the Final Bison Hunting Environmental Assessment to analyze bison hunting in the Absaroka-Beartooth Wilderness portion of Bison HD 385 from September 15 to November 14 for all successful applicants of the HD 385 bison licenses and establish mandatory harvest reporting and an annual harvest quota of 2 bison with a 48-hr closure notice, similar to MFWP regulations in Unlimited Bighorn Sheep Hunting Districts. Currently, the bison hunting season dates for this portion of HD 385 are November 15 to February 15. All other existing bison hunting regulations would pertain to the early Absaroka-Beartooth Wilderness bison season to include mandatory bison hunt orientation. (Note: The timing of drawing licenses and the beginning of the earlier season may necessitate the use of on-line orientation or the use of bison hunt orientation CDs, to be arranged by MFWP).

Current Bison Hunting Season: SB395 was submitted to the 2003 Montana Legislature to give Montana residents the opportunity to harvest bison that migrate from YNP. The bill passed, and a statute (MCA 87-2-730) consistent with earlier statues related to management of wild bison in Montana (see MCA 81-2-120) was drafted that authorized MFWP to explore the potential for developing a hunting season for bison that: 1) does not interfere with management efforts by YNP, Montana Department of Livestock (MDOL), and MFWP personnel; 2) is compatible with accepted land uses on public and private lands; and 3) can be conducted under ethical hunting conditions (i.e., fair chase). MCA 81-2-120 required joint authorization from MDOL and MFWP for a bison hunt and that both agencies cooperate in developing rules for bison hunting. The hunt was not to be a primary mechanism for controlling the Yellowstone bison population unless and until the brucellosis issue has been resolved and substantial numbers of bison are allowed to reside outside YNP, but it would allow a limited number of hunters the opportunity to harvest a native species that was a historically important source of protein.

A detailed Environmental Assessment (EA) was prepared to evaluate the feasibility of a limited public hunt for bison from the Yellowstone herd that enter Montana (Final Bison Hunting Environmental Assessment, September 30, 2004, MFWP, 91 pgs.). Following an extensive public involvement process, an alternative that allowed for the creation of a limited entry bison hunt was selected and a bison hunting season was established by the MFWP Commission September 8, 2005. Since then, there have been two bison hunting seasons in Montana.

Purpose and Benefits of Proposed Action: The purpose and benefit of this amendment is to provide a new and unique backcountry opportunity for hunters to hunt bison in a remote wilderness environment during the early fall. Due to winter weather conditions and seasonal bison movement patterns, there is currently no realistic bison hunting opportunity in the Absaroka-Beartooth Wilderness portion of HD 385 during the originally established general bison season dates (November 15 to February 15). By November 15, bison have typically moved out of this area to lower elevations inside YNP, or weather conditions make it extremely difficult to hunt in the backcountry during this time of year. During both the 2005 and 2006 bison hunting seasons, there were no bison harvested in the Absaroka-Beartooth portion of HD 385.

This action is more about expanding hunting opportunities for existing HD 385 bison hunters than it is about increasing the bison harvest. Bison hunting in the Absaroka-Beartooth Wilderness will require the use of horses, the ability to stay out for several days, or the use of professional outfitters. If some hunters are successful during the early backcountry season, there would be fewer hunters and less competition for an unpredictable number of bison on smaller winter range hunting areas from November 15 to February 15. In some years this proposal may lead to a minor increase in the number of bison harvested, but the impact is expected to be minimal due to setting low harvest quotas for the backcountry hunting season.

This same wilderness area already provides a unique backcountry early fall elk and deer rifle season from September 15 to the end of the general rifle season (Sunday after Thanksgiving). Bison hunters in the Absaroka-Beartooth Wilderness portion must follow all Forest Service and National Park Service regulations that pertain to use of this area (e.g., grizzly bear food storage regulations, fire restrictions, no transport of firearms or harvested animals inside YNP).

In 1953 and 1954, public bison hunts were conducted adjacent to YNP and at least 2-3 bison were harvested in the Absaroka-Beartooth Wilderness (Montana Big Game Trophies, 12<sup>th</sup> Edition – 2000, MFWP, pg. 131, Warren Johnson, pers. com.). During the last 10 years, MFWP Wardens, U.S. Forest Service Personnel, and local outfitters (Mark A. Anderson, Dan Tyers, Warren Johnson, pers. com.) have annually observed small numbers of bison (2-6) in this area during the September/October period. The animals have been observed in several locations north of the YNP boundary between Hellroaring and Slough Creek. The opportunity to harvest bison in this area is clearly limited and may vary from year to year. Hunter participation and success rates are expected to be low.

9. Description and analysis of reasonable alternatives (including the required no action alternative) to the proposed action whenever alternatives are reasonably available and prudent to consider and a comparison of the alternatives with the proposed action/preferred alternative:

<u>Alternative A: No Action</u> Bison hunting season dates in the Absaroka-Beartooth Wilderness portion of Bison HD 385 would remain from November 15 to February 15.

Estimated cost: No additional cost.

<u>Alternative B:</u> (Preferred) Allow bison hunting in the Absaroka-Beartooth Wilderness portion of Bison HD 385 from September 15 to November 14 for all successful applicants of the HD 385 bison licenses. Require mandatory harvest reporting and establish an annual harvest quota of 2 bison with a hunting season closure on a 48-hour notice, similar to MFWP regulations in Unlimited Bighorn Sheep Hunting Districts.

<u>Discussion:</u> This alternative would accomplish the purpose and benefit of providing a new and unique bison hunting opportunity in an area that currently provides no realistic hunting opportunity and would also establish a mechanism for regulating/adjusting the harvest to maintain a sustainable hunting season without jeopardizing the future movement of bison into this area. This alternative reinforces the management philosophy that the purpose of hunting in this area is to increase hunter opportunity and not to eliminate bison movement and use in this area. This alternative allows these same hunters to hunt bison in the Eagle Creek/Bear Creek portion of HD 385 during the November 15 – February 15 hunting season where the chance of harvesting a bison is higher.

Estimated cost: The expected cost of Alternatives B, C, and D would be minimal. Minor changes would occur in the printing of the regulations, providing on-line or CD based orientation if necessary to meet time constraints, drawing of possibly a few additional licenses (only in Alternative D), and operation of a harvest report call-in phone number to implement a season closure if necessary (harvest call-in numbers and a mechanism to close the season is already in place for other species at that time of the year and could be used for bison).

Alternative C: Allow bison hunting in the Absaroka-Beartooth Wilderness portion of Bison HD 385 from September 15 to November 14 for all successful applicants of the HD 385 bison licenses. Hunting would occur without a harvest reporting requirement or a specific harvest quota.

Discussion: This alternative would accomplish the purpose and benefit of providing a new and unique bison hunting opportunity in an area that currently provides no realistic hunting opportunity. Even though the actual harvest is expected to be low, this alternative does not provide a mechanism for regulating/adjusting the harvest to maintain a sustainable hunting season. There is no built in protection for maintaining long-term bison movement and use in this area. This alternative allows these same hunters to hunt bison in the Eagle Creek/Bear Creek portion of HD 385 during the November 15 – February 15 hunting season where the chance of harvesting a bison is higher.

Estimated cost: See Alternative B.

Alternative D: Create a new limited entry bison license valid only in the Absaroka-Beartooth Wilderness portion of Bison HD 385 from September 15 to November 14. Offer a small number of licenses (<10) to be issued through the drawing system.

<u>Discussion:</u> This alternative would accomplish the purpose and benefit of providing a new and unique bison hunting opportunity in an area that currently provides no realistic hunting opportunity. However, this alternative creates a situation where hunters will be limited to only a very small chance of finding and harvesting a bison and may create false expectations of success. Without these same hunters having the "fall-back" option of hunting bison in the Eagle Creek/Bear Creek portion of HD 385 later in the year, very few if any of them will be successful regardless of the amount of effort they expend.

Estimated cost: See Alternative B.

## 11. Listing of each local, state or federal agency that has overlapping or additional jurisdiction.

Management of bison along the boundary between Montana and YNP is the responsibility of YNP, United States Department of Agricultural (USDA) Animal and Plant Health Inspection Service (APHIS), MDOL, and MFWP as outlined in the Bison Management Plan, Final Environmental Impact Statement (National Park Service 2000, pgs. 46-51). Indirect bison management responsibility falls on landowners in areas outside YNP which in this case is the United States Forest Service (USFS) Gallatin National Forest who has land management authority over the Absaroka Beartooth Wilderness Area.

#### 12. List of agencies consulted during preparation of this Environmental Checklist:

U.S. Forest Service, Gallatin National Forest, Gardiner District National Park Service, Yellowstone National Park, Mammoth Headquarters USDA APHIS Montana Department of Livestock

#### 13. Name of Preparer(s) of this Environmental Assessment:

Tom Lemke Montana Fish, Wildlife & Parks 406 Chestnut Lane Livingston, MT 59047

#### 14. Date Draft EA submitted for public review. April 23, 2007

#### PART II. ENVIRONMENTAL CHECKLIST

**PHYSICAL ENVIRONMENT.** At the bottom of this "Land Resources" checklist, provide a narrative description and evaluation of the cumulative and secondary effects on land resources. Even if you checked "none" in the above table, explain how you came to that conclusion. Consider the immediate, short-term effects of the action as well as the long-term effects. Attach additional pages of narrative if needed.

1. LAND RESOURCES		IM	PACT			
Will the proposed action result in:	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Soil instability or changes in geologic substructure?		A-D				
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil, which would reduce productivity or fertility?		A-D				
c. Destruction, covering or modification of any unique geologic or physical features?		A-D				
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?		A-D				
e. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?		A-D				
f. Other						

**PHYSICAL ENVIRONMENT.** At the bottom of this "Air" checklist, provide a narrative description and evaluation of the cumulative and secondary effects on air resources. Even if you checked "none" in the above table, explain how you came to that conclusion. Consider the immediate, short-term effects of the action as well as the long-term effects. Attach additional pages of narrative if needed.

2. AIR		IM	PACT			
Will the proposed action result in:	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Emission of air pollutants or deterioration of ambient air quality? (also see 13 (c))		A-D				
b. Creation of objectionable odors?		A-D				
c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?		A-D				
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?		A-D				
e. Any discharge that will conflict with federal or state air quality regs?		A-D				
f. Other						

**PHYSICAL ENVIRONMENT.** At the bottom of this "Water" checklist, provide a narrative description and evaluation of the cumulative and secondary effects on water resources. Even if you checked "none" in the above table, explain how you came to that conclusion. Consider the immediate, short-term effects as well as the long-term effects. Attach additional pages of narrative if needed.

3. WATER		IMPACT				
Will the proposed action result in:	Unknow n	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?		A-D				
b. Changes in drainage patterns or the rate and amount of surface runoff?		A-D				
c. Alteration of the course or magnitude of floodwater or other flows?		A-D				
d. Changes in the amount of surface water in any water body or creation of a new water body?		A-D				
e. Exposure of people or property to water related hazards such as flooding?		A-D				
f. Changes in the quality of groundwater?		A-D				
g. Changes in the quantity of groundwater?		A-D				
h. Increase in risk of contamination of surface or groundwater?		A-D				
i. Effects on any existing water right or reservation?		A-D				
j. Effects on other water users as a result of any alteration in surface or groundwater quality?		A-D				
k. Effects on other users as a result of any alteration in surface or groundwater quantity?		A-D				
l. Effects to a designated floodplain?		A-D				
m. Any discharge that will affect federal or state water quality regulations?		A-D				
n. Other:						

See original EA (Final Bison Hunting Environmental Assessment, September 30, 2004, MFWP, 91 pg.) for an evaluation on the effects on physical environment. This proposal is a minor amendment to the original EA.

**PHYSICAL ENVIRONMENT.** At the bottom of this "Vegetation" checklist, provide a narrative description and evaluation of the cumulative and secondary effects on vegetative resources. Even if you checked "none" in the above table, explain how you came to that conclusion. Consider the immediate, short-term effects as well as the long-term effects. Attach additional pages of narrative if needed.

4. VEGETATION		IM	PACT			Comment Index
Will the proposed action result in:	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	
a. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?		A-D				
b. Alteration of a plant community?		A-D				
c. Adverse effects on any unique, rare, threatened, or endangered species?		A-D				
d. Reduction in acreage or productivity of any agricultural land?		A-D				
e. Establishment or spread of noxious weeds?		A-D				
f. Effects to wetlands or prime and unique farmland?		A-D				
g. Other:						

See original EA (Final Bison Hunting Environmental Assessment, September 30, 2004, MFWP, 91 pg.) for an evaluation on the effects on physical environment. This proposal is a minor amendment to the original EA.

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**PHYSICAL ENVIRONMENT.** At the bottom of this "Fish/Wildlife" checklist, provide a narrative description and evaluation of the cumulative and secondary effects on fish and wildlife resources. Even if you checked "none" in the above table, explain how you came to that conclusion. Consider the immediate, short-term effects as well as he long-term effects. Attach additional pages of narrative if needed.

5. FISH/WILDLIFE		IM	PACT			
Will the proposed action result in:	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Deterioration of critical fish or wildlife habitat?		A-D				
b. Changes in the diversity or abundance of game animals or bird species?			B-D			5B
c. Changes in the diversity or abundance of nongame species?		A-D				
d. Introduction of new species into an area?		A-D				
e. Creation of a barrier to the migration or movement of animals?		A-D				
f. Adverse effects on any unique, rare, threatened, or endangered species?		A-D				
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?			B-D			5G
h. Adverse effects to threatened/endangered species or their habitat?		A-D				
i. Introduction or exportation of any species not presently or historically occurring in the receiving location?		A-D				
j. Other:						

- 5, b. Under Alternatives B-D the harvest of bison is not expected to increase significantly, however, there is a chance a few more bison (<10) could be harvested out of a population that currently numbers 3,500-3,900 animals.
- 5, g. Hunting bison during the early fall in the Absaroka-Beartooth Wilderness may result in the harvest of a few bison in an area were they have not been harvested since the 1950's. The preferred Alternative B provides a mechanism (harvest quota system) to restrict/regulate the allowable annual harvest in this area in ways that will ensure the continued movement into and use of this

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area by bison. The initial proposal is to set the annual harvest quota at 2 bison. The quota would be evaluated annually based on bison availability and previous harvest.

See original EA (Final Bison Hunting Environmental Assessment, September 30, 2004, MFWP, 91 pg.) for an evaluation on the effects on physical environment. This proposal is a minor amendment to the original EA.

**HUMAN ENVIRONMENT.** At the bottom of this "Noise/Electrical Effects" checklist, provide a narrative description and evaluation of the cumulative and secondary effects of noise and electrical activities. Even if you checked "none" in the above table, explain how you came to that conclusion. Consider the immediate, short-term effects as well as the long-term effects. Attach additional pages of narrative if needed.

6. NOISE/ELECTRICAL EFFECTS		IM				
Will the proposed action result in:	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Increases in existing noise levels?			A-D			
b. Exposure of people to severe or nuisance noise levels?			A-D			
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?			A-D			
d. Interference with radio or television reception and operation?			A-D			
e. Other:						

**HUMAN ENVIRONMENT.** At the bottom of this "Land Use" checklist, provide a narrative description and evaluation of the cumulative and secondary effects on land use. Even if you checked "none" in the above table, explain how you came to that conclusion. Attach additional pages of narrative if needed. Consider the immediate, short-term effects as well as the long-term effects.

7. LAND USE		IM	PACT			
Will the proposed action result in:	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		A-D				
b. A conflict with a designated natural area or area of unusual scientific or educational importance?		A-D				
c. A conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		A-D				
d. Adverse effects on, or relocation of, residences?		A-D				
e. Compliance with existing land policies for land use, transportation, and open space?		A-D				
f. Increased traffic hazards, traffic volume, or speed limits or effects on existing transportation facilities or patterns of movement of people and goods?		A-D				
g. Other:						

**HUMAN ENVIRONMENT.** At the bottom of this "Risk/Health Hazards" checklist, provide a narrative description and evaluation of the cumulative and secondary effects of risks and health hazards. Even if you checked "none" in the above table, explain how you came to that conclusion. Consider the immediate, short-term effects of the action as well as the long-term effects. Attach additional pages of narrative if needed.

8. RISK/HEALTH HAZARDS		IM	PACT			
Will the proposed action result in:	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?		A-D				
b. Effects on existing emergency response or emergency evacuation plan or create need for a new plan?		A-D				
c. Creation of any human health hazard or potential hazard?		A-D				
d. Disturbance to any sites with known or potential deposits of hazardous materials?		A-D				
e. The use of any chemical toxicants?		A-D				
f. Other:						

**HUMAN ENVIRONMENT.** At the bottom of this "Community Impact" checklist, provide a narrative description and evaluation of the cumulative and secondary effects on the community. Even if you checked "none" in the above table, explain how you came to that conclusion. Consider the immediate, short-term effects as well as the long-term effects. Attach additional pages of narrative if needed.

9. COMMUNITY IMPACT		IM	PACT			
Will the proposed action result in:	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		A-D				
b. Alteration of the social structure of a community?		A-D				
c. Alteration of the level or distribution of employment or community or personal income?		A	B-D			9, c. below
d. Changes in industrial or commercial activity?		A-D				
e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?		A-D				
f. Other:						

9, c. Under Alternatives B-D there may be a minor increase in the use of licensed outfitters to hunt bison during the early fall in the Absaroka-Beartooth Wilderness portion of HD 385.

**HUMAN ENVIRONMENT.** At the bottom of this "Public Services/Taxes/Utilities" checklist, provide a narrative description and evaluation of the cumulative and secondary effects on public services, taxes and utilities. Even if you checked "none" in the above table, explain how you came to that conclusion. Consider the immediate, short-term effects as well as the long-term effects. Attach additional pages of narrative if needed.

10. PUBLIC SERVICES/TAXES/UTILITIES		IIV				
Will the proposed action result in:	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. An effect upon, or result in a need for new or altered, governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If so, specify: recreation trails, roads, litter		A-D				
b. Effects on the local or state tax base and revenues?		A-D				
c. A need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?		A-D				
d. Increased used of any energy source?		A-D				
e. Other.						
Additional information requested:						
f. Define projected revenue sources.				N/A		
g. Define projected maintenance costs.				N/A		

**HUMAN ENVIRONMENT.** At the bottom of this "Aesthetics/Recreation" checklist, provide a narrative description and evaluation of the cumulative and secondary effects on aesthetics & recreation. Even if you checked "none" in the above table, explain how you came to that conclusion. Consider the immediate, short-term effects as well as the long-term effects. Attach additional pages of narrative if needed.

11. AESTHETICS/RECREATION		IN				
Will the proposed action result in:	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?		A-D				
b. Alteration of the aesthetic character of a community or neighborhood?		A-D				
c. Alteration of the quality or quantity of recreational/tourism opportunities and settings? (Attach Tourism Report)		A	B-D			11, c. below
d. Adverse effects to any designated or proposed wild or scenic rivers, trails or wilderness areas?		A-D				
e. Other:						

11,c. Alternatives B-D would provide a unique "once in life time" opportunity to hunt bison in a remote and scenic wilderness setting, that currently exists no where else in the country.

**HUMAN ENVIRONMENT.** At the bottom of this "Cultural/historical Resources" checklist, provide a narrative description and evaluation of the cumulative and secondary effects on cultural/historical resources. Even if you checked "none" in the above table, explain how you came to that conclusion. Consider the immediate, short-term effects as well as the long-term effects. Attach additional pages of narrative if needed.

12. CULTURAL/HISTORICAL RESOURCES		IM				
Will the proposed action result in:	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Destruction or alteration of any site, structure or object of prehistoric historic, or paleontological importance?		A-D				
b. Physical changes that would affect unique cultural values?		A-D				
c. Effects on existing religious or sacred uses of a site or area?		A-D				
d. Adverse effects to historic or cultural resources?		A-D				
e. Other:						

**HUMAN ENVIRONMENT.** At the bottom of this "Summary Evaluation of Significance" checklist, provide a narrative description and evaluation of the cumulative and secondary effects. Even if you have checked "none" in the above table, explain how you came to that conclusion. Consider the immediate, short-term effects as well as the long-term effects. Attach additional pages of narrative if needed.

13. SUMMARY EVALUATION OF SIGNIFICANCE		IM							
Will the proposed action, considered as a whole:	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index			
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources which create a significant effect when considered together or in total.)		A-D							
b. Involve potential risks or adverse effects which are uncertain but extremely hazardous if they were to occur?		A-D							
c. Potentially conflict with the substantive requirements of any local, state, or federal law, regulation, standard or formal plan?			A-D			13, c. below			
d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?		A-D							
e. Generate substantial debate or controversy about the nature of the impacts that would be created?			A-D			13, e. below			
f. Have organized opposition or generate substantial public controversy?			A-D			13, f. below			
Additional information requested:	Additional information requested:								
g. List any federal or state permits required.  Please see Part I above, Item # 11a. Permi local, state or federal agency that has overlaging jurisdiction.									

13, c. During both the 2005 and 2006 bison hunting seasons, Nez Perce Tribal members harvested bison in Montana adjacent to YNP under provisions in the Stevens Treaty of 1855. There is also interest from the Confederated Salish-Kootenai Tribe to harvest bison in this area in the future. At this point in time, there is some uncertainty how the tribal treaty harvest will impact bison management and Montana's bison hunting seasons. MFWP have and will continue to communicate

and negotiate with the Nez Perce and the Confederated Salish-Kootenai Tribes with regard to bison harvest and management. There are complicated legal and resource management issues to be clarified and defined among various parties. Issues related to tribal bison harvest may impact MFWP's future bison management options. MFWP is committed to fulfilling its responsibilities with regard to long-term bison population conservation and management and human safety issues related to hunting bison. MFWP has the legal authority to regulate tribal harvest of bison as necessary to ensure bison populations are conserved, substantial human safety risk is avoided, and there is a thoughtful and equitable allocation of harvest between tribal and licensed Montana hunters.

- 13, e. History has shown that any proposals dealing with the management of Yellowstone bison has the potential to generate substantial debate and controversy. Bison management and particularly the hunting of bison in Montana is a very emotional issue with many people and interest groups. Considering that this proposal is a minor amendment to the original Bison Hunting EA that was adopted after considerable discussion and public scrutiny, we do not expect substantial debate or controversy.
- 13, f. Over the years proposals dealing with the management of Yellowstone bison have generated organized opposition and considerable discussion. Several organized groups have formed to express their opinions on bison management. The exact level of interest or involvement from organized groups regarding this minor amendment to the original Bison Hunting EA difficult to predict. Again, considering that this proposal is a very minor amendment to the original Bison Hunting EA that was adopted after considerable discussion and public scrutiny, we do not expect substantial debate or controversy.

#### PART III. ENVIRONMENTAL CHECKLIST CONCLUSION SECTION

#### 1. Discuss the cumulative and secondary effects of this project as a whole.

This minor amendment to the original Bison Hunt EA will likely have little cumulative or secondary effects on bison hunting as a whole. Under the preferred alternative, we would not be adding any additional bison hunters and we do not expect any significant increase in bison harvest as a result of this proposal. We have a built in mechanism (harvest quota system) to control/adjust the annual harvest of bison in the Absaroka-Beartooth Wilderness to ensure that bison will continue be able to move into and use this area in the future. Bison use of the area and the harvest quota will be evaluated on an annual basis.

2.	Based on the significance criteria evaluated in this Environmental Checklist (Part II),
	is an EIS required?

YES	
NO	X

If an EIS is not required, explain why the current checklist level of review is appropriate.

This is a minor amendment to a project (Final Bison Hunt EA, September 30, 2004, MDFWP, 91 pg.) that in itself did not require an EIS. This minor amendment to adjust a bison hunting season date in a portion of Bison HD 385 does not significantly affect any criteria in the Environmental Checklist.

#### 2. Describe the public involvement for this project.

Adjusting the bison hunting season dates in the Absaroka-Beartooth Wilderness Area was discussed during the Inter-agency Bison Management Open House held at the Holiday Inn in Bozeman on January 30, 2007. The proposal will also be discussed at local public bison management meetings to be held at the Gardiner Community Center, Gardiner, MT from 7-9 PM May 3, 2007 and at The Holiday Inn, West Yellowstone, MT from 7-9 PM on May 8, 2007. The draft EA will be distributed to the media and various interested parties for a 22-day comment period beginning April 23, 2007.

#### 3. What was the duration of the public comment period?

The public comment period will extend for twenty-two (22) days following the publication of the legal notice in area newspapers. Written comments will be accepted until May 14, 2007, and can be mailed to Bison EA, Montana FWP, 1400 South 19<sup>th</sup> Avenue, Bozeman MT 59718 or e-mail to FWPRG3EA@mt.gov

#### **APPENDICES**

Appendix A. Copy of 2006 Montana Bison Hunting Regulations

# **2006**Montana Hunting Regulations

## **Bison**



These regulations and quotas are adopted under the authority granted to the Fish, Wildlife & Parks Commission (FWPC) in section 87-1-301, MCA and are valid March 1, 2006 through February 28, 2007. These regulations were adopted by the FWPC on August 3, 2006. The FWPC reserves the authority to amend the seasons, limits and regulations herein if deemed necessary for wildlife management purposes. M. Jeff Hagener, Director.

State and Federal laws, Title VI of Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, and Title IX of the Education Amendments of 1972, prohibit discrimination on the basis of race, color, sex, age, religion, national origin, or disability. Anyone believing he or she has been discriminated against (as described above) in any Fish, Wildlife & Parks (FWP) program, activity, or facility may write to FWP Personnel Office, 1420 East Sixth Avenue, PO Box 200701, Helena, MT 59620-0701 or the office of Equal Opportunity, U.S. Department of the Interior, Washington, D.C. 20240.

#### Licensing -

- · Application process:
  - Applicants must possess a valid 2006 conservation license to apply.
  - Applications must be accompanied by a \$5 nonrefundable drawing fee.
  - Hunters may apply for a bison license:
    - online at fwp.mt.gov/Hunting/Obtain a License/ no later than 11:45 p.m. MDT on Friday, September 15, 2006, or
    - over-the-counter at any FWP regional office, FWP area office, and/or the Helena Headquarters by 5 p.m. MDT on Friday, September 15, 2006, or
    - by mail. Applications are available at all FWP license providers or may be downloaded from the FWP website at fwp.mt.gov. Applications must be received at FWP Helena Headquarters by 5 p.m. MDT on Friday, September 15, 2006.
- General public bison licenses are allotted through a random drawing.
- Successful applicants will be required to possess or purchase a bison license and hunter access enhancement fee before hunting.

License cost:	Resident	Nonresident
Conservation	\$8	\$10
Bison License	\$125	\$750
Hunter Access		
Enhancement Fee	\$2	\$10

 Licenses will be issued after completion of the required hunt orientation class. Tribal licenses will be issued free-of-charge from FWP.

#### Bison License Quota -

- A total of 140 bison licenses will be issued, including 95 eithersex licenses and 45 cow/calf licenses.
- Of that total, 16 either sex licenses will be offered to Tribal members in accordance with 87-2-731 MCA.
  - Two either-sex licenses will be issued to each Tribe. Licenses issued to an individual Tribe will be for the same randomly drawn hunting district and time period.
- In addition, 124 licenses will be issued to the general public for the 2006 bison hunting season.
- Nonresidents are limited to, but not guaranteed, 10 percent of the license quota.
- Any licenses unclaimed after October 20 will be reallocated according to FWP policy.

#### General Regulations AND Methods and Means of Hunting –

- Hunting is restricted to individuals with licenses issued via a drawing process similar to that employed for other special licenses issued by FWP or as designated by Tribal authority. All licenses are non-transferable.
- General regulations as listed in the 2006 Big Game Deer/ Elk/Antelope hunting regulations shall govern the 2006 bison season for all license holders.
- The season will begin November 15, 2006 and end February 15, 2007.
  - There are two hunting districts, each with multiple time periods as listed below.
  - · Applicants may apply for only one of the following options.

#### ----- HD 385 -----

385-00: 5 licenses		
<ul> <li>Nov 15 - Dec 31</li> </ul>	-	Either-sex Bison.
385-01: 5 licenses		
<ul> <li>Jan 01 - Jan 16</li> </ul>	-	Either-sex Bison.
385-10: 5 licenses		
<ul> <li>Jan 01 - Jan 16</li> </ul>	-	Cow/calf Bison.
385-02: 10 licenses		
<ul> <li>Jan 17 - Jan 31</li> </ul>	-	Either-sex Bison.
385-11: 5 licenses		
• Jan 17 - Jan 31	-	Cow/calf Bison.
385-03: 5 licenses		
• Feb 01 - Feb 15	-	Either-sex Bison.
385-12: 10 licenses		
• Feb 01 - Feb 15	-	Cow/calf Bison.

#### ----- HD 395 -----

395-00: 20 license	S
<ul> <li>Nov 15 - Dec 31</li> </ul>	<ul> <li>Either-sex Bison</li> </ul>
395-01: 20 license	S
<ul> <li>Jan 01 - Jan 16</li> </ul>	<ul> <li>Either-sex Bison</li> </ul>
395-10: 5 licenses	
<ul> <li>Jan 01 - Jan 16</li> </ul>	<ul> <li>Cow/calf Bison.</li> </ul>
395-02: 15 license	S
<ul> <li>Jan 17 - Jan 31</li> </ul>	<ul> <li>Either-sex Bison</li> </ul>
395-11: 10 license	S
<ul> <li>Jan 17 - Jan 31</li> </ul>	<ul> <li>Cow/calf Bison.</li> </ul>
395-03: 15 license	S
<ul> <li>Feb 01 - Feb 15</li> </ul>	<ul> <li>Either-sex Bison</li> </ul>
395-12: 10 license	S
• Feb 01 - Feb 15	<ul> <li>Cow/calf Bison.</li> </ul>

- The only means of taking allowed are center-fire rifles.
   Muzzleloading black powder rifles and/or archery equipment are not permitted.
- Rifles are restricted to center-fire, 150 grain or larger bullet.
- Hunting is allowed on public land. It is also allowed on private land with landowner permission.
- · Bison licenses are valid in:
  - HD 385 Eagle Creek/Bear Creek drainage of the Gardiner Basin in the North Boundary area AND portions of the Absaroka-Beartooth Wilderness north of Yellowstone National Park, (including the upper portions of the Hellroaring and Slough Creek drainages). See map, legal descriptions and hunting closures in these regulations.
  - HD 395 Public land with no cattle allotments in the Cabin Creek Recreation and Wildlife Management Area, the Monument Mountain Unit of the Lee Metcalf Wilderness, and the upper Gallatin River drainage south of the mouth of Taylor Fork, and the West Yellowstone Area. See map, legal descriptions and hunting closures in these regulations.

continued ...

- To protect public safety and minimize traffic obstructions, no bison hunting is allowed within 100 yards of major highways.
- Hunting on national forest lands must follow restrictions in USFS order 36 CFR 261.10 (d) (firearm discharges are prohibited within 150 yards of residence, building, campsite, developed recreation site, or occupied area or across a forest service road or body of water).
- License quotas, hunting district boundaries, and season structure can be modified by FWP Commission authority.
- Hunting hours authorized for the taking of big game animals begin one-half hour before sunrise and end one-half hour after sunset each day of the hunting season. See official 2006
- Sunrise-Sunset Tables in these regulations. As adopted under SB395 (MCA 87-2-730) FWP shall not provide actual physical location of wild bison other than the prescribed hunting district where the animal may be taken.
- Hunting is subject to 24-hour closure in the event it becomes necessary to allow for hazing under the Interagency Bison Management Plan.
- All permitted hunters will be required to participate in a hunt orientation with FWP staff. Hunters must contact an FWP Regional office (see listings in these Regulations) to schedule the orientation.
- Hunting shall be only by foot or horseback.
- It is unlawful to possess or transport the fetus or reproductive tissues of a bison away from the kill site. This shall not include specifically minimized tissues naturally attached to the carcass or a portion of the carcass as necessary for evidence of sex as follows:
  - Male: head with horns or penis.
  - · Female: head with horns or vulva.

#### Information and Recommendations –

- Bison can achieve a live weight of up to 2,000 pounds, and can be very difficult for the average person to field dress alone. Participants should bring several people with them, or hire an outfitter to assist with the field dressing and handling of their bison. If participants plan to field dress and load their own animal, axes, knives, saws, and block and tackle may be necessary
- Due to the bison's immense size and thick hide, palatable meat may spoil quickly without immediate and proper care. It is recommended that bison be skinned and quartered within five hours of the kill. The hide should not be left on the bison overnight, even if it is hanging.

#### Brucellosis -

- Bison in Yellowstone National Park carry bacteria that cause a disease known as brucellosis or bang's disease. The diseasecausing bacteria can be transmitted from bison to cattle. If domestic cattle are infected, there are negative effects to individual cattle producers in the form of a loss of production, loss of markets, and costly preventative measures, including vaccination. Brucellosis in Yellowstone National Park bison is one of the primary reasons that attempts are being made to control bison in Montana.
- Brucellosis in bison is caused by a bacterium that can also infect humans. In humans, brucellosis is called undulant fever. Symptoms include intermittent fever, chills, night sweats, body aches, poor appetite and weakness. If undulant fever is treated early, it is fairly easy to cure. However, if the disease reaches a chronic stage, treatment is difficult.
- In bison, the bacteria is concentrated in the lymph nodes, reproductive organs and the udder. Cooking destroys bacteria that may be present in the meat. Thus, when thoroughly cooked, the meat is safe to eat. You can protect yourself by following these handling tips:
  - Consider every bison to be potentially infected. The results of blood tests show that about 50 percent of the bison are exposed to brucellosis.
  - Always wear protective gloves when dressing carcasses or handling viscera.
  - Avoid contact with milk or material from the reproductive tract.
  - · Avoid touching your eyes, nose or mouth until you have scrubbed after handling the animal.
  - Individuals with open sores or cuts on their hands should be especially careful.

- Discard organ meats.
- · Thoroughly cook all meat consumed.

#### Bison Hunt Legal Descriptions –

The following areas are open to bison hunting for the 2006 season. Note: No hunting within the city limits of West Yellowstone and no hunting within the fenced boundary of the West Yellowstone airport.

#### **HUNTING DISTRICT 385:**

#### Eagle Creek/Bear Creek Drainage of the Gardiner Basin in the North Boundary Area

Beginning at the boundary intersection of Yellowstone National Park and the Absaroka-Beartooth Wilderness just east of Gardiner, then northerly and westerly along said Wilderness boundary to hydrologic divide between Little Trail Creek and Maiden Basin, then south down said divide to Little Trail Creek, then west down said Creek to U.S. Hwy 89, then southeasterly up said Hwy to the Yellowstone National Park boundary, then east along said boundary to its intersection with the Absaroka-Beartooth Wilderness boundary, the point of beginning.

Note: Exception 1, HD 385 Hunting Closure -- Beginning at the Junction of U.S. Hwy 89 and Little Trail Creek, then up Little Trail Creek to the posted line (approx. 1/2 mile above U.S. Hwy 89), then southeasterly along said line to the Travertine-Trail Creek Road, then easterly along said road to its intersection with the Gardiner-Jardine Road, then northeasterly along said road to Eagle Creek, then southerly down said creek to the YNP Boundary, then west along said boundary to its intersection with U.S. Hwy 89, then northwesterly along said Hwy to its intersection with Little Trail Creek, the point of beginning.

#### AND

Portions of the Absaroka-Beartooth Wilderness North of Yellowstone National Park (including the upper portions of the Hellroaring and Slough Creek drainages)

The entire Hellroaring, Buffalo Fork, and Slough creeks drainages north of Yellowstone National Park.

#### **HUNTING DISTRICT 395:**

#### West Yellowstone Area as defined as Zone 2 in the Interagency Bison Management Plan -

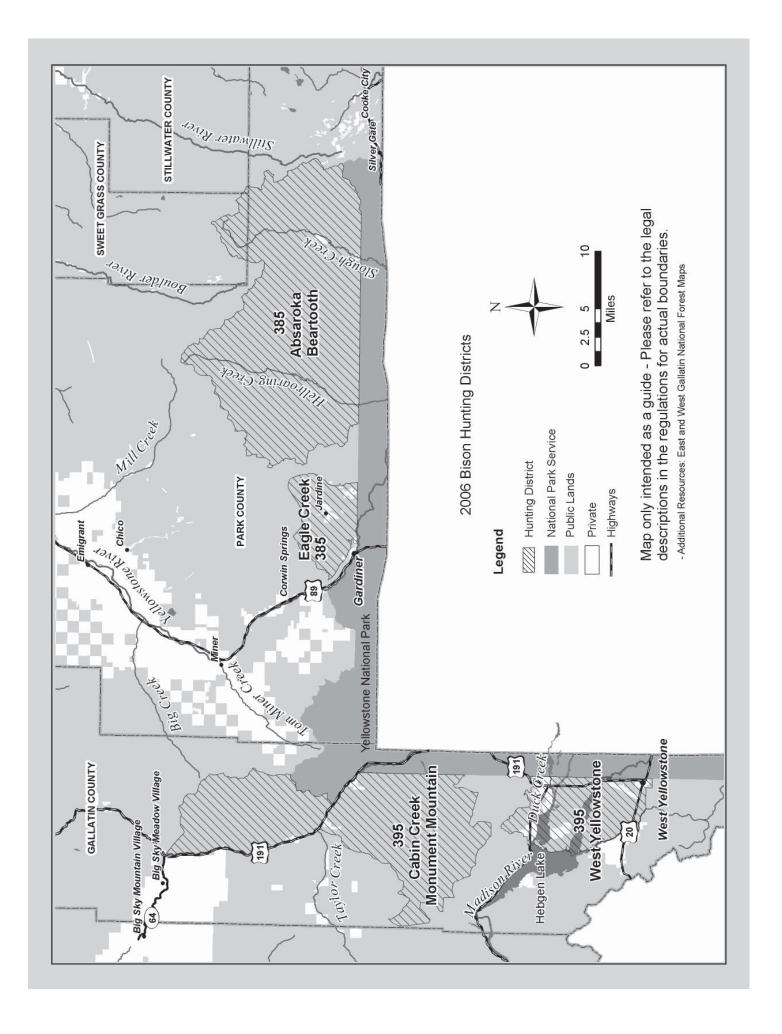
Beginning at the intersection of Grayling Creek and the Yellowstone National Park Boundary, then south along the Park boundary to its intersection with the south section line of Section 34, T13S, R5E (1/4) mile south of West Yellowstone), then west along said section line to its intersection with USFS Road 1700 (in the southwest corner of said section), then north and west along said road to its intersection with the South Fork of the Madison River, then northwesterly along the east bank of the South Fork of the Madison River to its confluence with Hebgen Lake, then northwest along a straight line across said Lake to the tip of Edwards Peninsula, then northerly along the west shore of the Horse Butte Peninsula to The Narrows, then northwest along a straight line across The Narrows to the Lakeview Resort, then northeasterly along the private land/USFS boundary to Red Canyon Creek, then north up Red Canyon Creek to the mouth of Coal Canyon Creek, then up Coal Canyon Creek to the top of Graycroft Ridge, then southesterly to the high point of Graycroft Ridge, then Northeasterly to Johnson Creek outlet at Johnson Lake, then southeast down Johnson Creek to its intersection with Little Tepee Creek Trail (#90), then south along said trail to its intersection with the Whits Lake Road, then northeasterly along said road to the Whits Lake trailhead, then southeasterly down the Whits Lake outlet stream to its confluence with Grayling Creek, then easterly up Grayling Creek to its intersection with the Yellowstone National Park Boundary, the point of beginning.

#### **AND**

Public land with no cattle allotments in the Cabin Creek Recreation and Wildlife Management Area, the Monument

Mountain Unit of the Lee Metcalf Wilderness, and the upper Gallatin River drainage south of the mouth of Taylor Fork

— Beginning at the junction of U.S. Hwy 191 and the road leading to the trailhead for U.S.F.S. Trail 68 located between the mouth of Taylor Fork and Sage Creek, then southeasterly up the Taylor Fork/Sage Creek divide and the Taylor Fork/Beaver and Cabin Creeks divide to the west boundary of the Cabin Creek Recreation and Wildlife Management Area, to include those portions of said area lying south of the above description and including all of the Monument Mountain Unit of the Lee Metcalf Wilderness. The area open to hunting also includes the portion of the Gallatin drainage lying east of the Gallatin River and from Levinsky Ridge south to Yellowstone National Park.



#### **Contacts**

Montana Fish, Wildlife & Parks State Headquarters 1420 East 6 <sup>th</sup> Avenue, PO Box 200701,	
Helena, MT 59620-0701	.406-444-2535
Hunter Education	.406-444-3188
Wildlife Division	.406-444-2612
Enforcement Division	
Parks Division (Montana State Parks)	.406-444-3750
Deer, elk, antelope, moose, bighorn sheep,	
mountain goat, and all special drawings	.406-444-2950
Resident and nonresident licensing for	
fishing, upland game birds, migratory birds,	
black bear, and mountain lion	.406-444-2535
Nonresident mailing list for deer and	
elk big game combination licenses	
and regulations	.406-444-2950
Telephone Device for the Deaf	.406-444-1200

#### Montana Fish, Wildlife & Parks Regional Headquarters



REGION 1 490 N Meridian Rd Kalispell, MT 59901 (406) 752-5501

REGION 2 3201 Spurgin Rd Missoula, MT 59804 (406) 542-5500

REGION 3 1400 South 19<sup>th</sup> Ave Bozeman, MT 59718-5496 (406) 994-4042

HELENA Area Res Office (HARO) 930 Custer Ave W Helena, MT 59620 (406) 495-3260

BUTTE Area Res Office (BARO) 1820 Meadowlark Ln Butte, MT 59701 (406) 494-1953

REGION 4 4600 Giant Springs Rd Great Falls, MT 59405 (406) 454-5840 LEWISTOWN Area Res Office (LARO) 215 W Aztec Dr PO Box 938 Lewistown, MT 59457 (406) 538-4658

REGION 5 2300 Lake Elmo Dr Billings, MT 59105 (406) 247-2940

REGION 6 54078 US Hwy 2 E Glasgow, MT 59230 (406) 228-3700

HAVRE Area Res Office (HvARO) 2165 Hwy 2 E Havre, MT 59501 (406) 265-6177

REGION 7 Industrial Site West PO Box 1630 Miles City, MT 59301 (406)234-0900

#### Contacts Outside Fish, Wildlife & Parks

Montana State Agencies Agriculture 406-444-3144

Guides & Outfitters 406-841-2373 Livestock

**406-444-7323** State Lands **406-444-2074** 

Tourism 406-841-2795

Federal Agencies
US Department of

Interior 202-208-3100 US Fish & Wildlife Service 406-449-5225 Land Maps

Bureau of Land Management 406-896-5000 Topographical (USGS) 888-275-8747

**Tribal Lands** 

Fort Belknap 406-353-2205 Fort Peck Reservation 406-768-5305 Northern Cheyenne Reservation

406-395-4207

406-477-8844
Rocky Boy Reservation

### 2006 Sunrise-Sunset Tables For Determining Hunting Hours

These tables, including adjustments for daylight savings time, are the official sunrise-sunset tables adopted by the Montana Fish, Wildlife & Parks Commission for hunting in Montana. Authorized hunting hours for the taking of bison begin one-half hour before sunrise and end one-half hour after sunset each day of the hunting season. (Do not utilize from other sources).



#### ZONE 2

INCLUDES: Beaverhead, Broadwater, Cascade, Choteau, Deer Lodge, Gallatin, Glacier, Hill, Jefferson, Lewis & Clark, Liberty, Madison, Meagher, Park, Pondera, Powell, Silver Bow, Teton and Toole Counties.

#### ZONE 2

ZONE 2												
	Se	pt	0	ct	No	OV	De	ec	Ja	an	Fe	eb
	Rise	Set										
Day	A.M.	P.M.										
01	6:48	8:07	7:27	7:08	7:10	5:13	7:52	4:42	8:12	4:51	7:52	5:32
02	6:49	8:05	7:28	7:06	7:11	5:11	7:53	4:42	8:12	4:52	7:51	5:33
03	6:51	8:03	7:29	7:04	7:13	5:10	7:54	4:42	8:12	4:53	7:50	5:35
04	6:52	8:01	7:31	7:02	7:14	5:08	7:55	4:41	8:12	4:54	7:48	5:36
05	6:53	7:59	7:32	7:00	7:16	5:07	7:56	4:41	8:12	4:55	7:47	5:38
06	6:55	7:57	7:33	6:58	7:17	5:06	7:57	4:41	8:12	4:56	7:46	5:39
07	6:56	7:56	7:35	6:56	7:19	5:04	7:58	4:41	8:12	4:57	7:44	5:41
80	6:57	7:54	7:36	6:54	7:20	5:03	7:59	4:41	8:11	4:59	7:43	5:42
09	6:58	7:52	7:38	6:52	7:22	5:02	8:00	4:41	8:11	5:00	7:41	5:44
10	7:00	7:50	7:39	6:51	7:23	5:00	8:01	4:41	8:11	5:01	7:40	5:45
11	7:01	7:48	7:40	6:49	7:25	4:59	8:02	4:41	8:10	5:02	7:38	5:47
12	7:02	7:46	7:42	6:47	7:26	4:58	8:03	4:41	8:10	5:03	7:37	5:48
13	7:03	7:44	7:43	6:45	7:27	4:57	8:04	4:41	8:09	5:05	7:35	5:50
14	7:05	7:42	7:44	6:43	7:29	4:56	8:05	4:41	8:09	5:06	7:34	5:52
15	7:06	7:40	7:46	6:41	7:30	4:55	8:06	4:41	8:08	5:07	7:32	5:53
16	7:07	7:38	7:47	6:39	7:32	4:54	8:06	4:41	8:08	5:09	7:31	5:55
17	7:09	7:36	7:49	6:38	7:33	4:53	8:07	4:42	8:07	5:10	7:29	5:56
18	7:10	7:34	7:50	6:36	7:35	4:52	8:08	4:42	8:06	5:11	7:27	5:58
19	7:11	7:32	7:51	6:34	7:36	4:51	8:08	4:42	8:05	5:13	7:26	5:59
20	7:12		7:53		7:37			4:43		5:14	7:24	
21	7:14	7:28	7:54	6:31	7:39	4:49	8:09	4:43	8:04	5:16	7:22	6:02
22	7:15	7:26	7:56	6:29	7:40	4:48	8:10	4:44	8:03	5:17	7:20	6:03
23	7:16	7:24	7:57	6:27	7:42	4:47	8:10	4:44		5:18	7:19	6:05
24	7:18	7:22	7:58	6:25	7:43	4:47	8:11	4:45	8:01	5:20	7:17	6:06
25	7:19		8:00		7:44	4:46	8:11	4:46	8:00		7:15	
26	7:20		8:01		7:45			4:46		5:23	7:13	
27	7:22		8:03		7:47			4:47		5:24	7:12	6:11
28	7:23		8:04		7:48			4:48		5:26	7:10	6:12
29	7:24	7:12	7:06	5:17	7:49	4:43	8:12	4:49	7:56	5:27		
30	7:25	7:10		5:16	7:51	4:43		4:49		5:29		
31			7:09	5:14			8:12	4:50	7:53	5:30		

